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L3: Entry 4 of 10

File: USPT

Mar 11, 1997

DOCUMENT-IDENTIFIER: US 5609873 A

TITLE: Use of an ecdysteroid for the preparation of cosmetic or dermatological compositions intended, in particular, for strengthening the water barrier function of the skin or for the preparation of a skin cell culture medium, as well as to the compositions

Brief Summary Paragraph Right (20):

It should be noted that the expression "at least partially incorporated in liposomes" is understood to mean that the ecdysteroid or its derivative, or the plant or animal extract containing same, is combined with liposomes irrespective of the form of this combination. In other words, in the context of the invention, the ecdysteroid or its derivatives or the plant or animal extract containing same may be totally encapsulated or partially encapsulated, or be on the outside simply in the presence of liposomes.

Brief Summary Paragraph Right (21):

The preparation of liposomes at least partially containing at least one ecdysteroid according to the invention may be carried out according to one of the known processes for incorporating active substances, in particular steroids, in liposomes.

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1. Document ID: US 6331289 B1

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC
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2. Document ID: US 6168804 B1

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC
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3. Document ID: US 5733526 A

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC
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4. Document ID: US 5609873 A

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC
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5. Document ID: US 4882167 A

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMMC
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6. Document ID: US 4743545 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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☐ 7. Document ID: US 4615881 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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☐ 8. Document ID: US 4590062 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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☐ 9. Document ID: US 4451452 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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☐ 10. Document ID: US 4446578 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 13 of 13 returned.**☐ 1. Document ID: US 6331289 B1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMMC](#)☐ 2. Document ID: US 6168804 B1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMMC](#)☐ 3. Document ID: US 6083529 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMMC](#)☐ 4. Document ID: US 6045823 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMMC](#)☐ 5. Document ID: US 5952001 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KMMC](#)☐ 6. Document ID: US 5783211 A

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☐ 7. Document ID: US 5714164 A

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☐ 8. Document ID: US 5656618 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
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☐ 9. Document ID: US 5653997 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
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☐ 10. Document ID: US 5643597 A

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☐ 11. Document ID: US 5609873 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMOC
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☐ 12. Document ID: US 5603949 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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K000C

☐ 13. Document ID: US 5387579 A

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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Terms	Documents
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**WEST****End of Result Set**

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L5: Entry 13 of 13

File: USPT

Feb 7, 1995

DOCUMENT-IDENTIFIER: US 5387579 A

TITLE: Use of .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

Brief Summary Paragraph Right (21):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Brief Summary Paragraph Right (29):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Current US Cross Reference Classification (1):424/450

**WEST**

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L5: Entry 9 of 13

File: USPT

Aug 5, 1997

DOCUMENT-IDENTIFIER: US 5653997 A

TITLE: Antiallergic cosmetic or pharmaceutical composition

Detailed Description Paragraph Right (26):

According to a particular embodiment of the invention in the context of any one of the aspects stated above, the abovementioned composition containing cucurbitine or one of its salts or esters, or the abovementioned plant extract, contains, in addition, vesicles of the liposome type. According to a particular variant, the cucurbitine, its salt or ester is at least partially encapsulated in vesicles of the liposome type. The expression "vesicle of the liposome type" is understood to mean both hydrated lamellar lipid phases and lipid vesicles composed of ionic or nonionic amphiphilic lipids. Also, the expression "to incorporate at least partially in vesicles of the liposome type" is understood, in the present description and the claims, to mean that the cucurbitine, its salt or ester is combined with vesicles of the liposome type irrespective of the form of this combination. However, a preferred combination lies in encapsulation of the cucurbitine, its salt or ester in vesicles of the liposome type. However, it is not necessary for the total amount to be incorporated or encapsulated in order to obtain the desired antiallergic effect according to the invention.

Current US Original Classification (1):424/450



**WEST**

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L5: Entry 5 of 13

File: USPT

Sep 14, 1999

DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

Brief Summary Paragraph Right (21):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Brief Summary Paragraph Right (29):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Current US Original Classification (1):424/450

cefaclor, cefadroxil, cephalixin, cephradine, erythromycin, clindamycin, lincomycin, amoxicillin, ampicillin, bacampicillin, carbenicillin, dicloxacillin, cyclacillin, picloxacillin, hetacillin, methicillin, nafcillin, penicillin or tetracycline; antiinflammatories such as diflunisal, ibuprofen, indomethacin, meclfenamate, mefenamic acid, naproxen, phenylbutazone, piroxicam, tolmetin, aspirin or salicylates; antiprotozoans such as chloroquine, metronidazole, quinine or meglumine antimonate; antirheumatics such as penicillamine; narcotics such as paregoric; opiates such as codeine, morphine or opium; cardiac glycosides such as deslaneside, digitoxin, digoxin, digitalin or digitalis; neuromuscular blockers such as atracurium mesylate, gallamine triethiodide, hexafluorenum bromide, metocurine iodide, pancuronium bromide, succinylcholine chloride, tubocurarine chloride or vecuronium bromide; sedatives such as amobarbital, amobarbital sodium, aprobarbital, butabarbital sodium, chloral hydrate, ethchlorvynol, ethinamate, flurazepam hydrochloride, glutethimide, methotrimeprazine hydrochloride, methypylon, midazolam hydrochloride, paraldehyde, pentobarbital, secobarbital sodium, talbutal, temazepam or triazolam; local anaesthetics such as bupivacaine, chloroprocaine, etidocaine, lidocaine, mepivacaine, procaine or tetracaine; general anaesthetics such as droperidol, etomidate, fentanyl citrate with droperidol, ketamine hydrochloride, methohexital sodium or thiopental and pharmaceutically acceptable salts (e.g. acid addition salts such as the hydrochloride or hydrobromide or base salts such as sodium, calcium or magnesium salts) or derivatives (e.g. acetates) thereof. Other examples of therapeutics include genetic material such as nucleic acids, RNA, and DNA of natural or synthetic origin, including recombinant RNA and DNA. DNA encoding certain proteins may be used in the treatment of many different types of diseases. For example, tumor necrosis factor or interleukin-2 may be provided to treat advanced cancers; thymidine kinase may be provided to treat ovarian cancer or brain tumors; interleukin-2 may be provided to treat neuroblastoma, malignant melanoma or kidney cancer; and interleukin-4 may be provided to treat cancer.

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L8: Entry 14 of 19

File: USPT

Feb 7, 1995

DOCUMENT-IDENTIFIER: US 5387579 A

TITLE: Use of .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

Abstract Paragraph Right (1):

The present invention relates to the use of an .alpha.-tocopherol phosphate, especially in its dl or d form, or an ester thereof, of the general formula ##STR1## in which: R.sub.1 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, or an .alpha.-tocopheryl radical; and R.sub.2 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as a methyl or ethyl radical in particular, or an oxyethylene chain of the formula ##STR2## in which R.sub.3 and R.sub.4 independently are a hydrogen atom or a methyl radical and n is an integer greater than or equal to 1, or a salt thereof, for preparing a pharmaceutical, dermatological or cosmetic composition for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Right (1):

The present invention relates in general terms to the use of an .alpha.-tocopherol phosphate, or an ester thereof, or a salt of these compounds, for preparing pharmaceutical, cosmetic or dermatological compositions with antiallergic or antiinflammatory activity or for the prevention or treatment of the harmful effects of free radicals, and to pharmaceutical, cosmetic or dermatological compositions with antiallergic or anti-inflammatory activity or for the prevention or treatment of the harmful effects of free radicals, in which said compound is incorporated.

Brief Summary Paragraph Right (9):

In another connection, German patent application A-3 416 209 describes the use of creams containing vitamin E for the treatment and prevention of inflammatory processes. By contrast, Berkenkopf and Lutsky have described that the injection of vitamin E into rats causes a chronic localized inflammation (Agents Actions 1979, 9, (4), 350-357).

Brief Summary Paragraph Right (10):

Thus the action of vitamin E on inflammation is controversial.

Brief Summary Paragraph Right (12):

Thus the object of the present invention is to solve the new technical problem which consists in providing an active substance having a good antiallergic activity, especially for the prevention or treatment of skin allergy or bronchial asthma, or a good antiinflammatory activity, or else a preventive or curative activity against the harmful effects of free radicals, in particular by topical or general administration, thereby constituting a valuable active ingredient for preparing cosmetic, dermatological or pharmaceutical compositions.

Brief Summary Paragraph Right (21):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Brief Summary Paragraph Right (22):

Preferably, the above-mentioned active agent is an antiallergic substance such as an extract of Scutellaria, for example an extract of the root of Scutellaria Baicalensis Georgi described in French patent application A-2 628 317, or an antiinflammatory substance.

Brief Summary Paragraph Right (29):

In an advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated after dispersion in the above-mentioned vesicles.

Brief Summary Paragraph Right (30):

Preferably, the above-mentioned active agent is an antiallergic substance such as an extract of Scutellaria, for example an extract of the root of Scutellaria Baicalensis Georgi described in French patent application A-2 628 317, or an antiinflammatory substance.

Brief Summary Paragraph Right (31):

In another advantageous embodiment, said cosmetic or dermatological compositions are prepared for the prevention and treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Right (38):

According to a fourth feature, the present invention further relates to a process for the manufacture of a cosmetic or dermatological composition intended in particular for the prevention or treatment of allergic manifestations such as skin allergy, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals, which comprises incorporating a compound of formula (I) or a salt thereof, as defined above, into a cosmetically or dermatologically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Right (39):

According to a fifth feature, the present invention further covers a process for the manufacture of a pharmaceutical composition for the prevention or treatment of allergic manifestations such as bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals, which comprises incorporating a compound of formula (I) or a salt thereof, as defined above, into a pharmaceutically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Right (42):

According to a sixth feature, the present invention covers a method of preventing or treating allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or of preventing or treating the harmful effects of free radicals, which comprises applying an effective amount of at least one compound of formula (I) or a salt thereof, as defined above, incorporated in a cosmetically, dermatologically or pharmaceutically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Left (1):

or a salt thereof, can be used for preparing a pharmaceutical, dermatological or cosmetic composition for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or else for the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Left (2):

or a salt thereof, for preparing a pharmaceutical, dermatological or cosmetic composition for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

## CLAIMS:

9. The composition of claim 5, wherein said biologically active agent is an anti-inflammatory substance.

22. The composition of claim 18, wherein said biologically active agent is an anti-inflammatory substance.

35. The method of claim 31, wherein said biologically active agent is an antiinflammatory substance.

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L8: Entry 11 of 19

File: USPT

Feb 18, 1997

DOCUMENT-IDENTIFIER: US 5603949 A

TITLE: Use of a tocopherol phosphate or one of its derivatives, for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

Abstract Paragraph Left (1):

Use of a tocopherol phosphate, other than alpha-tocopherol phosphate, especially in its dl or d form, or one of its esters having general formula (I) in which: R' is hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, R'O is a tocopheryl radical; R'' is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, or R''O is an oxyethylene chain, of formula (a) in which R.sub.4 and R.sub.5 are independently a hydrogen atom or a methyl radical, and n is an integer of 1 or over; R.sub.1, R.sub.2 and R.sub.3 are independently a hydrogen atom or a methyl radical, it being understood that R.sub.1, R.sub.2 and R.sub.3 cannot simultaneously be a methyl radical. A represents the groups (b), or (c). The invention also concerns the use of cosmetically or of pharmaceutically acceptable salts of said compound in the preparation of a cosmetic or pharmaceutical, especially dermatological, composition characterized by having a reduced allergizing or irritating potential, or used in the prevention or treatment of allergic conditions, such as cutaneous allergy or bronchial or inflammatory asthma, or in the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Right (1):

The present invention relates in general terms to the use of a tocopherol phosphate or an ester or salt thereof for the preparation of cosmetic or pharmaceutical compositions, especially dermatological compositions, having an anti-allergic or anti-inflammatory activity or intended for the prevention or treatment of the harmful effects of free radicals, and to the cosmetic or pharmaceutical compositions, especially dermatological compositions, having an anti-allergic or anti-inflammatory activity or intended for the prevention or treatment of the harmful effects of free radicals, in which said compound is incorporated.

Brief Summary Paragraph Right (9):

It has now been discovered, totally surprisingly and unexpectedly, that tocopherol phosphates other than alpha-tocopherol phosphate, especially in their dl or d form, or of an ester or salt thereof possess an anti-allergic, anti-inflammatory and anti-free-radical activity, enabling them to be used advantageously for the preparation of cosmetic or pharmaceutical compositions, especially dermatological compositions, having a reduced allergizing or irritating potential or intended for the prevention or treatment of allergic or anti-inflammatory manifestations, or else for the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Right (10):

The object of the present invention is thus to solve the new technical problem which consists in the provision of an active substance having a good anti-allergic activity, especially for the prevention or treatment of skin allergy or bronchial asthma, or a good anti-inflammatory activity, or else a preventive or curative activity towards the harmful effects of free radicals, in particular by topical or general administration, thereby constituting a valuable active ingredient for the preparation of cosmetic or pharmaceutical compositions, especially dermatological compositions.

Brief Summary Paragraph Right (22):

In one advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated, after dispersion, in the above-mentioned vesicles.

Brief Summary Paragraph Right (23):

The above-mentioned active agent is preferably an anti-allergic substance such as an extract of *Scutellaria*, for example a root extract of *Scutellaria baicalensis* Georgi described in the document FR-A-2 628 317, or an anti-inflammatory substance.

Brief Summary Paragraph Right (28):

According to a second feature, the present invention covers a cosmetic or pharmaceutical composition, especially dermatological composition, having a reduced allergizing or irritating potential or intended especially for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals, said composition comprising, as the active ingredient, at least one compound of formula (I) or a cosmetically or pharmaceutically acceptable salt thereof, as defined above.

Brief Summary Paragraph Right (32):

In one advantageous variant of the previous embodiment, the above-mentioned aqueous medium contains a biologically active agent, said agent being at least partially encapsulated, after dispersion, in the above-mentioned vesicles.

Brief Summary Paragraph Right (33):

The above-mentioned active agent is preferably an anti-allergic substance such as an extract of *Scutellaria*, for example a root extract of *Scutellaria baicalensis* Georgi described in the document FR-A-2 628 317, or an anti-inflammatory substance.

Brief Summary Paragraph Right (34):

In another advantageous embodiment, said cosmetic or dermatological compositions are prepared so as to have a reduced allergizing or irritating potential or so as to be intended for the prevention and treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

Brief Summary Paragraph Right (42):

According to a fourth feature, the present invention further relates to a process for the manufacture of a cosmetic or dermatological composition having a reduced allergizing or irritating potential or intended in particular for the prevention or treatment of allergic manifestations such as skin allergy, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals, said process comprising the incorporation of at least one compound of formula (I) or a salt thereof, as defined above, into a cosmetically or dermatologically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Right (43):

According to a fifth feature, the present invention further relates to a process for the manufacture of a pharmaceutical composition having a reduced allergizing or irritating potential or intended for the prevention or treatment of allergic manifestations such as bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals, said process comprising the incorporation of at least one compound of formula (I) or a salt thereof, as defined above, into a pharmaceutically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Right (46):

According to a sixth feature, the present invention covers a method of preventing or treating allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or preventing or treating the harmful effects of free radicals, said method comprising the general or topical administration, to the regions of the body to be treated, of an effective amount of at least one compound of formula (I) or a salt thereof, as defined above, incorporated in a cosmetically, dermatologically or pharmaceutically acceptable excipient, vehicle or carrier.

Brief Summary Paragraph Type 1 (3):

A is the group ##STR3## or of a cosmetically or pharmaceutically acceptable salt thereof, for the preparation of a cosmetic or pharmaceutical composition, especially dermatological composition, having a reduced allergizing or irritating potential or intended for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

Detailed Description Paragraph Right (16):

The inhibition of phospholipase A.sub.2, which is involved in the production of allergy and inflammation mediators, especially in the inflammatory reaction of skin allergies, is measured according to the protocol described by H. W. Chang, I. Kudo, M. Tomita and K. Inoue in J. Biochem. (Tokyo) 102(1): 147-154 (1987).

## CLAIMS:

21. The process of claim 20 wherein the biologically active agent is selected from the group consisting of an anti-allergic substance and an anti-inflammatory substance.

32. A cosmetic or pharmaceutical composition consisting essentially of (I) 0.001 to 10% concentration by weight of a tocopherol phosphate selected from the group consisting of:

(a) a tocopherol phosphate of general formula: ##STR13## in which: R' is selected from the group consisting of a hydrogen atom, an alkyl radical having 1 to 4 carbon atoms and a tocopherol radical when R' is in the form of R'O;

R" is selected from the group consisting of a hydrogen atom, an alkyl radical having 1 to 4 carbon atoms and, when R" is in the form of R"O, an oxyethylenated chain of the formula: ##STR14## in which R.sub.4 and R.sub.5 independently are selected from the group consisting of a hydrogen atom and a methyl radical, and n is an integer greater than or equal to 1;

R.sub.1, R.sub.2 and R.sub.3 independently are selected from the group consisting of a hydrogen atom and a methyl radical, with the proviso that R.sub.1, R.sub.2 and R.sub.3 cannot simultaneously be a methyl radical; and

A is the group: ##STR15## (b) zeta-1-tocopherol phosphate; (c) an ester of the tocopherol phosphate of part (a);

(d) an ester of the zeta-1-tocopherol phosphate of part (b);

(e) a cosmetically or pharmaceutically acceptable salt of the tocopherol phosphate of part (a); and

(f) a cosmetically or pharmaceutically acceptable salt of the zeta-1-tocopherol phosphate of part (b);

(II) a biologically active agent selected from the group consisting of an anti-allergic substance and an anti-inflammatory substance;

and (III) a cosmetically, dermatologically or pharmaceutically acceptable excipient, vehicle or carrier.



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L8: Entry 6 of 19

File: USPT

Jul 21, 1998

DOCUMENT-IDENTIFIER: US 5783211 A

TITLE: Liposome encapsulated active agent dry powder composition

Abstract Paragraph Left (1):

A stable dry powder skin care powder having prolonged and controlled release properties, useful as baby powders, body talcs, deodorizing powders, OTC eczema preparations, foot powders, anti-fungal powders, etc. The dry powder is preferably prepared by a process comprising spray-drying a mixture of liposome encapsulated active agent, starch and maltodextrin. The particle is designed so that activity of, e.g., an anti-inflammatory agent such as Dragosantol.RTM. can be specifically triggered by skin conditions, such as moisture, for optimal timing of delivery.

Brief Summary Paragraph Right (2):

The invention relates to dry powder skin care compositions useful as baby powders, body talcs, deodorizing powders, OTC eczema preparations, foot powders, anti-fungal powders, etc. More particularly, the invention relates to stable dry powders having prolonged and controlled release properties. The dry powder is preferably prepared by a process comprising spray-drying a mixture of liposome encapsulated active agent, modified starch and maltodextrin. The particle is designed so that activity of, e.g., an anti-inflammatory agent such as Dragosantol.RTM. can be specifically triggered by skin conditions, such as moisture, for optimal effect.

Brief Summary Paragraph Right (14):

It is an object of the present invention to provide a pharmaceutical or cosmetic delivery system which provides moisture absorbency as well as controlled release of active agent, such as an anti-inflammatory agent.

Brief Summary Paragraph Right (19):

These objectives are achieved by encapsulating active agents in liposomes, preferably nanosomes having an average diameter of approximately 200 nm, which are then mixed and spray dried with a carrier or matrix forming composition, preferably a water absorptive composition such as modified starch and preferably also maltodextrin. Liposomes act as the delivery agents for active agents like Dragosantol.RTM., Farnesol, etc. Dry powders like talc, starch, starch esters, zinc oxide, lithium carbonate, lithium stearate, aluminum stearate, magnesium stearate, magnesium carbonate, etc. are used not only for their traditional functions as absorbents but also as sensitizers for triggering the release of active agent. That is, as the water absorbent component of the particles according to the present invention absorbs water, it acts as a catalyst on the liposome component, which is physically adsorbed into or otherwise intimately associated with the absorbent as a result of the mixing and spray drying process, triggering a loss of structural integrity in the liposome carrier followed by the release of liposomes and of the active agent. Thus, in response to a condition such as perspiration or diaper wetting, the particles according to the present invention release one or more of, e.g., an anti-perspirant, anti-microbial or anti-inflammatory agent.

Detailed Description Paragraph Right (1):

The delivery system of the present invention can be variously formulated so long as the product comprises active agent at least partially encapsulated in liposomes, which liposomes are in turn physically or chemically adsorbed onto or dispersed within a conventional dry powder carrier or matrix in such a way that the dry powder carrier or matrix protects and stabilized the liposomes while dry, and that

absorption of water by the dry powder triggers release of active agent from the liposome.

Detailed Description Paragraph Right (2):

One specific example of a dry powder composition according to the present invention is a powder which contains .alpha.-bisabolol (the main ingredient in a composition available under the tradename DRAGOSANTOL.RTM. from Dragoco Corporation, Totowa, N.J.) as the active ingredient. Bisabolol is known to have antiphlogistic and antibacterial properties, and is generally applied to the skin in the form of a solution or in form of emulsion systems. In accordance with the present invention bisabolol is incorporated in liposomes, and the liposomes are mixed with a starch-based carrier system and spray dried to form Starchosomes.TM. wherein the conventional aqueous phase of liposome is up to more than 95% removed and replaced with a starch-based carrier system. The carrier (i.e., modified starch and maltodextrin) is a moisture absorbent which, upon absorbing moisture, triggers the mechanism for the elution of the bisabolol onto the skin. So long as the powder remains dry, the liposomes remain stable and active ingredient is preserved. As the powder absorbs increasing amounts of moisture, increasing amounts of active agent are released. This relationship provides a stable, long lasting, controlled anti-inflammatory property to the powder which is very useful in baby powders, eczema preparations, foot powders, etc. where cornstarch can absorb moisture and release bisabolol to fight irritation.

Detailed Description Paragraph Right (6):

Other suitable active agents include anti-perspirant, astringents, anti-inflammatory, anti-microbial, anti-fungal, etc. as well known in the art. The active agent, after incorporation and spray drying, should preferably but not necessarily be in a dry powder form.

Detailed Description Paragraph Right (14):

A great number of patents teach encapsulation of active agent into liposomes for topical application, but no patent teaches a dry powder formulation. For example, U.S. Pat. No. 5,356,633 (Woodle, et al.) teaches the preparation and injection of a liposome-entrapped anti-inflammatory agent. Great detail is given on the method for compound loading, i.e., the method for incorporation of compound into liposomes. U.S. Pat. No. 5,376,380 (Kikuchi, et al.) teaches a process for forming drug containing liposomal products, the process comprising freeze drying or spray drying empty liposomes, then adding an aqueous solution of a drug to the freeze dried or strayed dried liposomal preparation for reconstitution.

CLAIMS:

11. A dry body powder composition as in claim 1, wherein said biologically active agent is selected from the group consisting of anti-inflammatory, antiphlogistic, antibacterial, anti-perspirant, astringent, and anti-fungal agents.

## WEST Search History

DATE: Thursday, April 18, 2002

**Set Name Query**  
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result set

*DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR*

L8	L2 and (inflammation or \$inflammatory)	19	L8
L7	L2 and (ibuprofen or aspirin or \$salicylic)	11	L7
L6	L2 and indomethacin	5	L6
L5	L2 and ((424/450 )!.CCLS. )	13	L5
L4	L1 and ((424/450 )!.CCLS. )	0	L4
L3	L2 and steroid\$	10	L3
L2	(partially adj1 encapsulated)	762	L2
L1	(partially adj1 encapsulated) same (antiinflammatory)	0	L1

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 7 of 7 returned.**☐ 1. Document ID: US 5952001 A

L1: Entry 1 of 7

File: USPT

Sep 14, 1999

US-PAT-NO: 5952001

DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: September 14, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 514/100

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC
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☐ 2. Document ID: US 5656618 A

L1: Entry 2 of 7

File: USPT

Aug 12, 1997

US-PAT-NO: 5656618

DOCUMENT-IDENTIFIER: US 5656618 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: August 12, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458

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L1: Entry 30 of 48

File: USPT

Aug 30, 1994

DOCUMENT-IDENTIFIER: US 5342957 A

TITLE: Benzimidazoles useful in treating epithelial disorders

Detailed Description Paragraph Right (70):

Water-soluble active ingredients are usually incorporated by dispersing the cast film with an aqueous solution of the compound. The unencapsulated compound is then removed by centrifugation, chromatography, dialysis or other art-known suitable procedures. The lipid-soluble active ingredient is usually incorporated by dissolving it in the organic solvent with the phospholipid prior to casting the film. If the solubility of the material in the lipid phase is not exceeded or the amount present is not in excess of that which can be bound to the lipid, liposomes prepared by the above method usually contain most of the material bound in the lipid bilayers; separation of the liposomes from unencapsulated material is not required.

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L1: Entry 24 of 48

File: USPT

Apr 9, 1996

DOCUMENT-IDENTIFIER: US 5505960 A

TITLE: Liposomal piroxicam formulations

Brief Summary Paragraph Right (23):

Liposomes prepared by the above described method usually contain most of the active ingredient bound in the lipid bilayer and separation of the liposomes from unencapsulated material is not required. The single bilayered liposomes can conveniently be employed directly or they may also be employed in combination with other suitable pharmaceutically acceptable carriers for topical administration.

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L1: Entry 45 of 48

File: USPT

May 17, 1988

DOCUMENT-IDENTIFIER: US 4744989 A

TITLE: Method of preparing liposomes and products produced thereby

Brief Summary Paragraph Right (5):

Water-soluble biologically active compounds are usually incorporated by dispersing the cast film with an aqueous solution of the compound. The unencapsulated compound is then removed by centrifugation, chromatography, dialysation or some other suitable procedure. Lipid-soluble biologically active compounds are usually incorporated by dissolving them in the organic solvent with the phospholipid prior to casting the film. Providing the solubility of these compounds in the lipid phase is not exceeded or the amount present is not in excess of that which can be bound to the lipid, liposomes prepared by the above method usually contain most of the compound bound in the lipid bilayers; separation of the liposomes from unencapsulated material is not required. Other methods of preparing liposomes have been described although these are mainly specialized methods producing unilamellar liposomes and include reverse-phase evaporation of an organic solvent from a water-in-oil emulsion of phospholipid, infusion of organic solutions of phospholipid into large volumes of aqueous phase and detergent removal from mixed micelles of detergent and lipid.

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L7: Entry 2 of 11

File: USPT

Jan 23, 2001

DOCUMENT-IDENTIFIER: US 6177061 B1

TITLE: Contrast agents comprising an azeotropic mixture of two gases for ultrasound investigations

Brief Summary Paragraph Right (22):

The dispersed azeotropic gas mixture in contrast agents according to the invention will normally be associated with some form of stabilising material such as an encapsulating membrane or a surrounding matrix. Representative examples of contrast agent formulations which may be used include microbubbles of the azeotropic gas mixture stabilised (e.g. at least partially encapsulated) by a coalescence-resistant surface membrane (for example gelatin, e.g. as described in WO-A-8002365), a filmogenic protein (for example an albumin such as human serum albumin, e.g. as described in U.S. Pat. No. 4,718,433, U.S. Pat. No. 4,774,958, U.S. Pat. No. 4,844,882, EP-A-0359246, WO-A-9112823, WO-A-9205806, WO-A-9217213, WO-A-9406477 or WO-A-9501187), a polymer material (for example a synthetic biodegradable polymer as described in EP-A-0398935, an elastic interfacial synthetic polymer membrane as described in EP-A-0458745, a microparticulate biodegradable polyaldehyde as described in EP-A-0441468, a microparticulate N-dicarboxylic acid derivative of a polyamino acid--polycyclic imide as described in EP-A-0458079, or a biodegradable polymer as described in WO-A-9317718 or WO-A-9607434), a non-polymeric and non-polymerisable wall-forming material (for example as described in WO-A-9521631), or a surfactant (for example a polyoxyethylene-polyoxypropylene block copolymer surfactant such as a Pluronic, a polymer surfactant as described in WO-A-9506518, or a film-forming surfactant such as a phospholipid, e.g. as described in WO-A-9211873, WO-A-9217212, WO-A-9222247, WO-A-9428780, WO-A-9503835 or WO-A-9729783).

Brief Summary Paragraph Right (36):

Representative and non-limiting examples of drugs useful in accordance with this embodiment of the invention include antineoplastic agents such as vincristine, vinblastine, vindesine, busulfan, chlorambucil, spiroplatin, cisplatin, carboplatin, methotrexate, adriamycin, mitomycin, bleomycin, cytosine arabinoside, arabinosyl adenine, mercaptopurine, mitotane, procarbazine, dactinomycin (antinomycin D), daunorubicin, doxorubicin hydrochloride, taxol, plicamycin, aminogluthetamide, estramustine, flutamide, leuprolide, megestrol acetate, tamoxifen, testolactone, trilostane, amsacrine (m-AMSA), asparaginase (L-asparaginase), etoposide, interferon a-2a and 2b, blood products such as hematoporphyrins or derivatives of the foregoing; biological response modifiers such as muramylpeptides; antifungal agents such as ketoconazole, nystatin, griseofulvin, flucytosine, miconazole or amphotericin B; hormones or hormone analogues such as growth hormone, melanocyte stimulating hormone, estradiol, beclomethasone dipropionate, betamethasone, cortisone acetate, dexamethasone, flunisolide, hydrocortisone, methylprednisolone, paramethasone acetate, prednisolone, prednisone, triamcinolone or fludrocortisone acetate; vitamins such as cyanocobalamin or retinoids; enzymes such as alkaline phosphatase or manganese superoxide dismutase; antiallergic agents such as amalexanox; anticoagulation agents such as phenprocoumon or heparin; circulatory drugs such as propranolol; metabolic potentiators such as glutathione; antituberculars such as p-aminosalicylic acid, isoniazid, capreomycin sulfate, cyclosexine, ethambutol, ethionamide, pyrazinamide, rifampin or streptomycin sulphate; antivirals such as acyclovir, amantadine, azidothymidine, ribavirin or vidarabine; blood vessel dilating agents such as diltiazem, nifedipine, verapamil, erythritol tetranitrate, isosorbide dinitrate, nitroglycerin or pentaerythritol tetranitrate; anticoagulants such as warfarin or heparin; antibiotics such as dapson, chloramphenicol, neomycin,



Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC
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☐ 3. Document ID: US 5643598 A

L1: Entry 3 of 7

File: USPT

Jul 1, 1997

US-PAT-NO: 5643598

DOCUMENT-IDENTIFIER: US 5643598 A

TITLE: Method of skin care utilizing liposomes containing Scutellaria extracts

DATE-ISSUED: July 1, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX

US-CL-CURRENT: 424/450; 424/401, 424/741, 514/844

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC
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☐ 4. Document ID: US 5643597 A

L1: Entry 4 of 7

File: USPT

Jul 1, 1997

US-PAT-NO: 5643597

DOCUMENT-IDENTIFIER: US 5643597 A

TITLE: Use of a tocopherol phosphate or one of its derivatives for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: July 1, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Dumas; Marc	Colombes			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 424/401, 424/73, 424/741, 514/100, 514/147, 514/458, 514/944

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments		KWMC
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☐ 5. Document ID: US 5603949 A

L1: Entry 5 of 7

File: USPT

Feb 18, 1997

US-PAT-NO: 5603949

DOCUMENT-IDENTIFIER: US 5603949 A

TITLE: Use of a tocopherol phosphate or one of its derivatives, for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: February 18, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Dumas; Marc	Colombes			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 428/402.2, 514/458, 549/220

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
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☐ 6. Document ID: US 5443839 A

L1: Entry 6 of 7

File: USPT

Aug 22, 1995

US-PAT-NO: 5443839

DOCUMENT-IDENTIFIER: US 5443839 A

TITLE: Liposomes containing scutellaria extracts

DATE-ISSUED: August 22, 1995

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX

US-CL-CURRENT: 424/450; 424/401, 424/741

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
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☐ 7. Document ID: US 5387579 A

L1: Entry 7 of 7

File: USPT

Feb 7, 1995

US-PAT-NO: 5387579

DOCUMENT-IDENTIFIER: US 5387579 A

TITLE: Use of .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: February 7, 1995

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	K00C
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Terms	Documents
scutellaria and ((424/450)!.CCLS. )	7

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